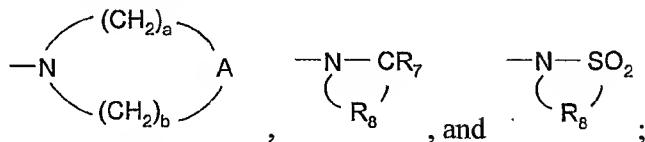


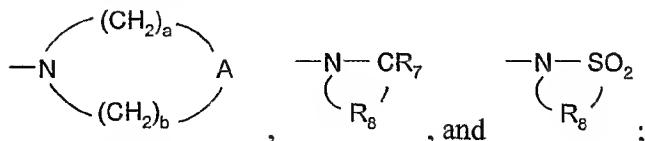
-X-R₅,
-X-N(R₆)-Y-R₄,
-X-C(R₇)-N(R₆)-R₄, and
-X-O-R₄;

5 or R₁' and R₁ together with the nitrogen atom to which they are bonded can join to form a group selected from the group consisting of:



R₄ is selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, heteroaryl, and heterocyclyl wherein the alkyl, alkenyl, alkynyl, aryl, heteroaryl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, haloalkyl, haloalkoxy, halogen, nitro, hydroxy, mercapto, cyano, carboxy, formyl, aryl, aryloxy, arylalkoxy, heteroaryl, heteroaryloxy, heteroarylalkoxy, heterocyclyl, heterocyclylalkylenyl, amino, alkylamino, (arylalkylenyl)amino, dialkylamino, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo, with the proviso that when R₄ is a substituted alkyl group and the substituent contains a hetero atom which bonds directly to the alkyl group then the alkyl group contains at least two carbons between the substituent and the nitrogen atom to which R₁ is bonded;

R₅ is selected from the group consisting of:



20 each R₆ is independently selected from the group consisting of hydrogen, alkyl, and arylalkylenyl;

R₇ is selected from the group consisting of =O and =S;

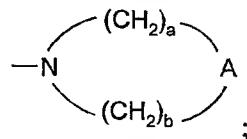
R₈ is C₂₋₇ alkylene;

25 A is selected from the group consisting of -CH(R₆)-, -O-, -N(R₆)-, -N(Y-R₄)-, and -N(X-N(R₆)-Y-R₄)-;

X is C₂₋₂₀ alkylene;

Y is selected from the group consisting of -C(R₇)-, -C(R₇)-O-, -S(O)₂-,

-S(O)₂-N(R₆)-, and -C(R₇)-N(R₉)-; wherein R₉ is selected from the group consisting of hydrogen, alkyl, and arylalkylenyl; or R₉ and R₄ together with the nitrogen atom to which R₉ is bonded can join to form the group



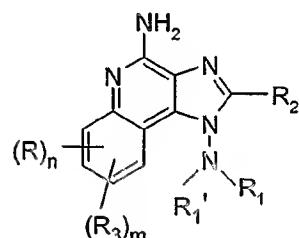
5 a and b are independently integers from 1 to 4 with the proviso that when A is -O-, -N(R₆)-, -N(Y-R₄)-, or -N(X-N(R₆)-Y-R₄)- then a and b are independently integers from 2 to 4; and

R" is hydrogen or a non-interfering substituent;
or a pharmaceutically acceptable salt thereof.

10

6. The compound or salt of claim 5 wherein the compound or salt induces the biosynthesis of one or more cytokines.

7. A compound of the Formula (I-1):



15 I-1

wherein:

R₁' is selected from the group consisting of hydrogen and alkyl;

R₁ is selected from the group consisting of:

20

-R₄,

-Y-R₄,

-X-R₅,

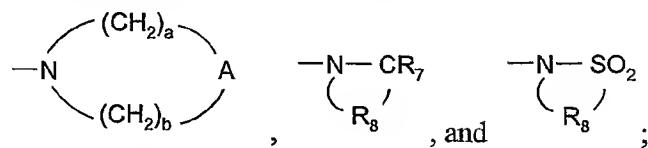
-X-N(R₆)-Y-R₄,

-X-C(R₇)-N(R₆)-R₄, and

25

-X-O-R₄;

or R₁' and R₁ together with the nitrogen atom to which they are bonded can join to form a group selected from the group consisting of:



R₂ is selected from the group consisting of:

- 5 -hydrogen,
- alkyl,
- alkenyl,
- aryl,
- heteroaryl,
- 10 -heterocyclyl,
- alkylene-Z-alkyl,
- alkylene-Z-aryl,
- alkylene-Z-alkenyl, and
- alkyl or alkenyl substituted by one or more substituents selected from the
- 15 group consisting of:
- OH,
- halogen,
- N(R₆)₂,
- C(R₇)-N(R₆)₂,
- 20 -S(O)₂-N(R₆)₂,
- N(R₆)-C(R₇)-C₁₋₁₀ alkyl,
- N(R₆)-S(O)₂-C₁₋₁₀ alkyl,
- C(O)-C₁₋₁₀ alkyl,
- C(O)-O-C₁₋₁₀ alkyl,
- 25 -N₃,
- aryl,
- heteroaryl,
- heterocyclyl,
- C(O)-aryl, and
- 30 -C(O)-heteroaryl;

R₃ is selected from the group consisting of:

- Z'-R₄',
- Z'-X'-R₄',
- Z'-X'-Y'-R₄', and
- Z'-X'-R₅');

5

each R is independently selected from the group consisting of alkyl, alkenyl, alkoxy, halogen, fluoroalkyl, hydroxy, amino, alkylamino, and dialkylamino;

n is an integer from 0 to 4;

m is 0 or 1; with the proviso that when m is 1, then n is 0 or 1;

10

R₄ is selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, heteroaryl, and heterocyclyl wherein the alkyl, alkenyl, alkynyl, aryl, heteroaryl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, haloalkyl, haloalkoxy, halogen, nitro, hydroxy, mercapto, cyano, carboxy, formyl, aryl, aryloxy, arylalkoxy,

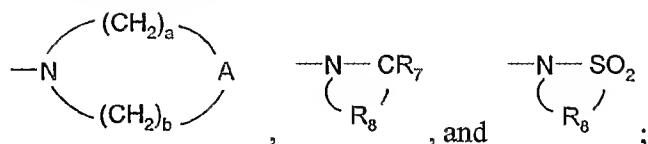
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heteroaryl, heteroaryloxy, heteroarylalkoxy, heterocyclyl, heterocyclylalkylenyl, amino, alkylamino, (arylalkylenyl)amino, dialkylamino, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo, with the proviso that when R₄ is a substituted alkyl group and the substituent contains a hetero atom which bonds directly to the alkyl group then the alkyl group contains at least two carbons between the substituent and the nitrogen atom to

20

which R₁ is bonded;

R₅ is selected from the group consisting of:

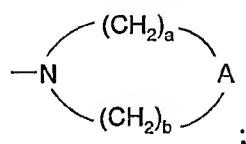


X is C₂₋₂₀ alkylene;

Y is selected from the group consisting of -C(R₇)-, -C(R₇)-O-, -S(O)₂-,

25

-S(O)₂-N(R₆)-, and -C(R₇)-N(R₉)-; wherein R₉ is selected from the group consisting of hydrogen, alkyl, and arylalkylenyl; or R₉ and R₄ together with the nitrogen atom to which R₉ is bonded can join to form the group



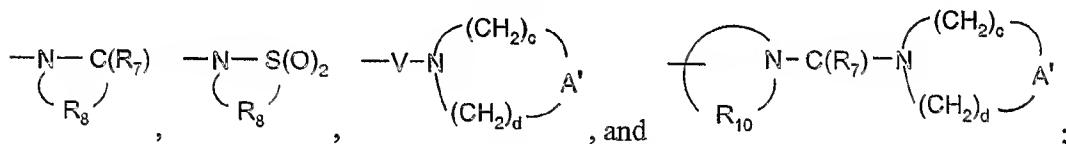
Z is selected from the group consisting of -O- and -S(O)₀₋₂₋;

A is selected from the group consisting of -CH(R₆)-, -O-, -N(R₆)-, -N(Y-R₄)-, and -N(X-N(R₆)-Y-R₄)-;

a and b are independently integers from 1 to 4 with the proviso that when A is
5 -O-, -N(R₆)-, -N(Y-R₄)-, or -N(X-N(R₆)-Y-R₄)- then a and b are independently integers from 2 to 4;

R_{4'} is selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl wherein the alkyl, alkenyl, 10 alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen, nitro, hydroxy, mercapto, cyano, aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy, 15 heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino, dialkylamino, (dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo;

R_{5'} is selected from the group consisting of:



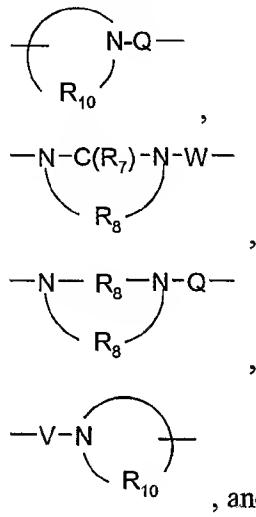
X' is selected from the group consisting of alkylene, alkenylene, alkynylene, arylene, heteroarylene, and heterocyclene wherein the alkylene, alkenylene, and alkynylene groups can be optionally interrupted or terminated by arylene, heteroarylene, or heterocyclene and optionally interrupted by one or more -O- groups;

Y' is selected from the group consisting of:

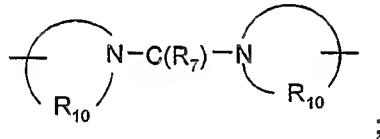
- 25 -S(O)₀₋₂₋,
- S(O)₂-N(R₁₁)-,
- C(R₇)-,
- C(R₇)-O-,
- O-C(R₇)-,
- O-C(O)-O-,

-N(R₁₁)-Q-,
 -C(R₇)-N(R₁₁)-,
 -O-C(R₇)-N(R₁₁)-,
 -C(R₇)-N(OR₁₂)-,

5



, and



10

Z' is a bond or -O-;

A' is selected from the group consisting of -CH₂-, -O-, -C(O)-, -S(O)₀₋₂₋, and -N(R₄')-;

Q is selected from the group consisting of a bond, -C(R₇)-, -C(R₇)-C(R₇)-,

-S(O)₂-, -C(R₇)-N(R₁₁)-W-, -S(O)₂-N(R₁₁)-, -C(R₇)-O-, and -C(R₇)-N(OR₁₂)-;

15

V is selected from the group consisting of -C(R₇)-, -O-C(R₇)-, -N(R₁₁)-C(R₇)-, and -S(O)₂-;

W is selected from the group consisting of a bond, -C(O)-, and -S(O)₂-;

c and d are independently integers from 1 to 6 with the proviso that c + d is ≤ 7, and when A' is -O- or -N(R₄')- then c and d are independently integers from 2 to 4;

20

each R₆ is independently selected from the group consisting of hydrogen, alkyl, and arylalkylenyl;

each R₇ is independently selected from the group consisting of =O and =S;

each R₈ is independently C₂₋₇ alkylene;

R₁₀ is C₃₋₈ alkylene;

each R₁₁ is independently selected from the group consisting of hydrogen, C₁₋₁₀ alkyl, C₂₋₁₀ alkenyl, C₁₋₁₀ alkoxyC₂₋₁₀ alkylene, and arylC₁₋₁₀ alkylene; and R₁₂ is selected from the group consisting of hydrogen and alkyl; or a pharmaceutically acceptable salt thereof.

5

8. The compound or salt according to claim 7 wherein R₁ is selected from the group consisting of -R₄, -Y-R₄, and -X-N(R₆)-Y-R₄ wherein Y is -C(R₇)-, -S(O)₂-, or -C(R₇)-N(R₉)-.

10

9. The compound or salt according to claim 8 wherein R₁ is selected from the group consisting of hydrogen, alkyl, alkenyl, arylalkylene, arylalkenylene, heteroarylalkylene, heteroarylalkenylene, aminoalkylene, alkoxyalkylene, acyl, alkylsulfonylaminoalkylene, arylsulfonylaminoalkylene, alkylaminocarbonyl, arylaminocarbonyl, (arylalkylene)aminoalkylene, heterocyclylcarbonylaminoalkylene, and arylaminocarbonylaminoalkylene.

15

10. The compound or salt according to claim 9 wherein R₁ is selected from the group consisting of hydrogen, methyl, isopropyl, butyl, 2-methylpropyl, 1-ethylpropyl, 3-methylbutyl, cyclohexyl, benzyl, 3-phenylpropyl, cinnamyl, furan-2-ylmethyl, and -CH₂CH₂CH₂-NHR₁₃, wherein R₁₃ is selected from the group consisting of methanesulfonyl, phenylsulfonyl, benzyl, isopropylaminocarbonyl, morpholine-4-carbonyl, and phenylaminocarbonyl.

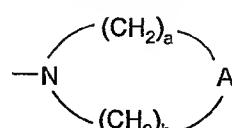
20

11. The compound or salt according to claim 7 wherein R₁' is hydrogen.

25

12. The compound or salt of claim 7 wherein R₁ and R₁' are each independently alkyl.

13. The compound or salt of claim 7 wherein R₁ and R₁' join to form the group:



30

14. The compound or salt according to claim 7 wherein R₂ is selected from the group consisting of hydrogen, alkyl, and alkoxyalkylenyl.

15. The compound or salt according to claim 14 wherein R₂ is selected from the group consisting of hydrogen, methyl, propyl, butyl, 2-methoxyethyl, and ethoxymethyl.

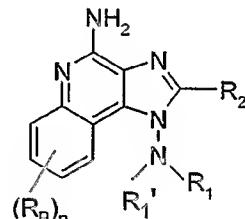
16. The compound or salt according to claim 7 wherein n is 0.

17. The compound or salt according to claim 7 wherein n is 0, and R₃ is selected from the group consisting of -Z'-R₄', -Z'-X'-R₄', and -Z'-X'-Y'-R₄'.

18. The compound or salt according to claim 17 wherein R₃ is selected from the group consisting of 2-(pyridin-3-yl)ethyl, pyridinyl, hydroxymethylpyridinyl, ethoxyphenyl, (morpholine-4-carbonyl)phenyl, 2-(methanesulfonylamino)ethoxy, and benzyloxy.

15

19. A compound of the Formula (I-2):



I-2

wherein:

20

R_B is selected from the group consisting of alkyl, alkoxy, halogen, hydroxy, and trifluoromethyl;

n is an integer from 0 to 4;

R₁' is selected from the group consisting of hydrogen and alkyl;

R₁ is selected from the group consisting of:

25

-R₄,

-Y-R₄,

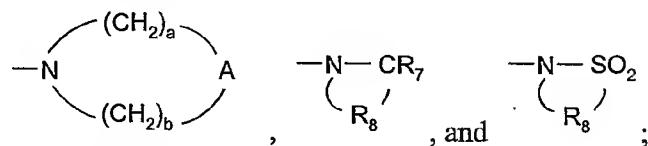
-X-R₅,

-X-N(R₆)-Y-R₄,

-X-C(R₇)-N(R₆)-R₄, and

-X-O-R₄;

or R₁' and R₁ together with the nitrogen atom to which they are bonded can join to form a group selected from the group consisting of:



5

R₂ is selected from the group consisting of:

-hydrogen,

-alkyl,

-alkenyl,

10

-aryl,

-heteroaryl,

-heterocyclyl,

-alkylene-Z-alkyl,

-alkylene-Z-aryl,

15

-alkylene-Z-alkenyl, and

-alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:

-OH,

-halogen,

20

-N(R₆)₂,

-C(R₇)-N(R₆)₂,

-S(O)₂-N(R₆)₂,

-N(R₆)-C(R₇)-C₁₋₁₀ alkyl,

-N(R₆)-S(O)₂-C₁₋₁₀ alkyl,

25

-C(O)-C₁₋₁₀ alkyl,

-C(O)-O-C₁₋₁₀ alkyl,

-N₃,

-aryl,

-heteroaryl,

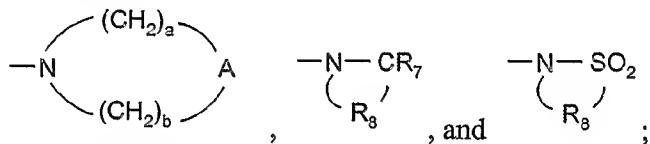
30

-heterocyclyl,

-C(O)-aryl, and
-C(O)-heteroaryl;

R₄ is selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, heteroaryl, and heterocyclyl wherein the alkyl, alkenyl, alkynyl, aryl, heteroaryl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, haloalkyl, haloalkoxy, halogen, nitro, hydroxy, mercapto, cyano, carboxy, formyl, aryl, aryloxy, arylalkoxy, heteroaryl, heteroaryloxy, heteroarylalkoxy, heterocyclyl, heterocyclylalkylenyl, amino, alkylamino, (arylalkylenyl)amino, dialkylamino, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo, with the proviso that when R₄ is a substituted alkyl group and the substituent contains a hetero atom which bonds directly to the alkyl group then the alkyl group contains at least two carbons between the substituent and the nitrogen atom to which R₁ is bonded;

R₅ is selected from the group consisting of:



each R₆ is independently selected from the group consisting of hydrogen, alkyl, and arylalkylenyl;

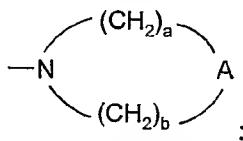
each R₇ is independently selected from the group consisting of =O and =S;

R₈ is C₂₋₇ alkylene;

A is selected from the group consisting of -CH(R₆)-, -O-, -N(R₆)-, -N(Y-R₄)-, and -N(X-N(R₆)-Y-R₄)-;

X is C₂₋₂₀ alkylene;

Y is selected from the group consisting of -C(R₇)-, -C(R₇)-O-, -S(O)₂-, -S(O)₂-N(R₆)-, and -C(R₇)-N(R₉)-; wherein R₉ is selected from the group consisting of hydrogen, alkyl, and arylalkylenyl; or R₉ and R₄ together with the nitrogen atom to which R₉ is bonded can join to form the group



Z is selected from the group consisting of -O- and -S(O)₀₋₂-; and

a and b are independently integers from 1 to 4 with the proviso that when A is -O-, -N(R₆)-, -N(Y-R₄)-, or -N(X-N(R₆)-Y-R₄)- then a and b are independently integers from 2 to 4;

or a pharmaceutically acceptable salt thereof.

5

20. The compound or salt according to claim 19 wherein R₁ is selected from the group consisting of -R₄, -Y-R₄, and -X-N(R₆)-Y-R₄ wherein Y is -C(R₇)-, -S(O)₂-, or -C(R₇)-N(R₉)-.

10

21. The compound or salt according to claim 20 wherein R₁ is selected from the group consisting of hydrogen, alkyl, alkenyl, arylalkylenyl, arylalkenylenyl, heteroarylalkylenyl, heteroaryalkenylenyl, aminoalkylenyl, alkoxyalkylenyl, acyl, alkylsulfonylaminoalkylenyl, arylsulfonylaminoalkylenyl, alkylaminocarbonyl, arylaminocarbonyl, (arylalkylenyl)aminoalkylenyl, and arylaminocarbonylaminoalkylenyl.

15

22. The compound or salt according to claim 21 wherein R₁ is selected from the group consisting of hydrogen, methyl, isopropyl, butyl, 2-methylpropyl, 1-ethylpropyl, 3-methylbutyl, cyclohexyl, benzyl, cinnamyl, furan-2-ylmethyl, and -CH₂CH₂CH₂-NHR₁₃, wherein R₁₃ is selected from the group consisting of methanesulfonyl, phenylsulfonyl, benzyl, and phenylaminocarbonyl.

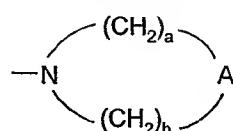
20

23. The compound or salt according to claim 19 wherein R₁' is hydrogen.

25

24. The compound or salt of claim 19 wherein R₁ and R₁' are each independently alkyl.

25. The compound or salt of claim 19 wherein R₁ and R₁' join to form the group:



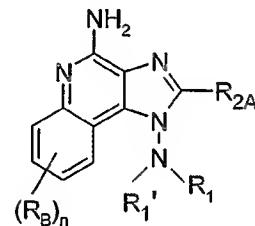
26. The compound or salt according to claim 19 wherein R₂ is selected from the group consisting of hydrogen, alkyl, and alkoxyalkylenyl.

27. The compound or salt according to claim 26 wherein R₂ is selected from the group consisting of hydrogen, butyl, 2-methoxyethyl, and ethoxymethyl.

28. The compound or salt according to claim 19 wherein n is 0.

29. The compound or salt according to claim 19 wherein n is 1, and R is halogen or hydroxy.

30. A compound of the Formula (I-3):



I-3

15 wherein:

R_B is selected from alkyl, alkoxy, halogen, hydroxy, and trifluoromethyl;

n is an integer from 0 to 4;

R₁' is selected from hydrogen and alkyl;

R₁ is selected from:

20 -R₄,

-Y-R₄,

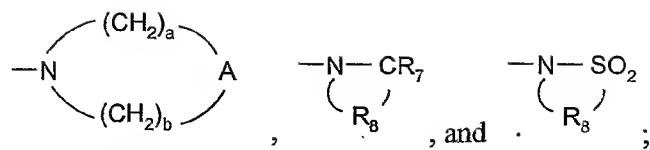
-X-R₅,

-X-N(R₆)-Y-R₄,

-X-CR₇-N(R₆)-R₄, and

-X-O-R₄;

25 or R₁' and R₁ together with the nitrogen atom to which they are bonded can join to form a group selected from:



R_{2A} is selected from:

- hydrogen,
- alkyl,
- 5 -alkenyl,
- aryl,
- heteroaryl,
- alkylene-Z-alkyl,
- alkylene-Z-aryl,
- 10 -alkylene-Z- alkenyl, and

-alkyl or alkenyl substituted by one or more substituents selected from:

- OH,
- halogen,
- N(R₆)₂,
- 15 -CR₇-N(R₆)₂,
- SO₂-N(R₆)₂,
- N(R₆)-CR₇-C₁₋₁₀ alkyl,
- N(R₆)- SO₂-C₁₋₁₀ alkyl,
- C(O)-C₁₋₁₀ alkyl,
- 20 -C(O)-O-C₁₋₁₀ alkyl,
- N₃,
- aryl,
- heteroaryl,
- heterocyclyl,
- 25 -C(O)-aryl, and

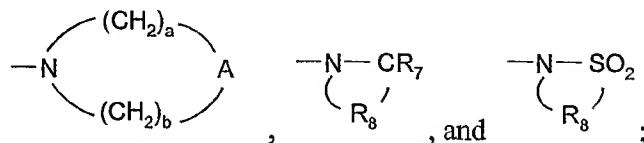
-C(O)-heteroaryl;

R₄ is selected from hydrogen, alkyl, alkenyl, alkynyl, aryl, heteroaryl, and heterocyclyl wherein the alkyl, alkenyl, alkynyl, aryl, heteroaryl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from alkyl, alkoxy, haloalkyl, haloalkoxy, halogen, nitro, hydroxy, mercapto, cyano,

carboxy, formyl, aryl, aryloxy, arylalkoxy, heteroaryl, heteroaryloxy, heteroarylalkoxy, heterocycl, heterocyclalkylenyl, amino, alkylamino, (arylalkylenyl)amino, dialkylamino, and in the case of alkyl, alkenyl, alkynyl, and heterocyethyl, oxo, with the proviso that when R₄ is a substituted alkyl group and the substituent contains a hetero atom which bonds directly to the alkyl group then the alkyl group contains at least two carbons between the substituent and the nitrogen atom to which R₁ is bonded;

5

R₅ is selected from:



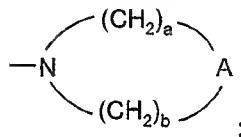
R₆ is selected from hydrogen, alkyl, and arylalkylenyl;

10

R₇ is selected from =O and =S;

R₈ is C₂₋₇ alkylene;

R₉ is selected from hydrogen, alkyl, and arylalkylenyl, or R₉ and R₄ together with the nitrogen atom to which R₉ is bonded can join to form the group



15

A is selected from -CHR₆-, -O-, -N(R₆)-, -N(Y-R₄)-, and -N(X-N(R₆)-Y-R₄)-;

X is C₂₋₂₀ alkylene;

Y is selected from -CR₇-, -SO₂-, -SO₂-N(R₆)-, and -CR₇-N(R₉)-;

Z is selected from -O- and -S(O)₀₋₂;

20

a and b are independently integers from 1 to 4 with the proviso that when A is

-O-, -N(R₆)-, -N(Y-R₄)-, or -N(X-N(R₆)-Y-R₄)- then a and b are independently integers from 2 to 4;

and pharmaceutically acceptable salts thereof.

25

31. The compound or salt according to claim 30 wherein R₁ is selected from -R₄, -Y-R₄, and -X-N(R₆)-Y-R₄ wherein Y is -CR₇-, -SO₂-, or -CR₇-N(R₉)-.

32. The compound or salt according to claim 31 wherein R₁ is selected from the group consisting of hydrogen, alkyl, alkenyl, arylalkylenyl, arylalkenylenyl, heteroarylalkylenyl,

heteroarylalkylenyl, aminoalkylenyl, alkoxyalkylenyl, acyl, alkylsulfonylaminoalkylenyl, arylsulfonylaminoalkylenyl, alkylaminocarbonyl, arylaminocarbonyl, (arylalkylenyl)aminoalkylenyl, and arylaminocarbonylaminoalkylenyl.

5

33. The compound or salt according to claim 32 wherein R₁ is selected from hydrogen, isopropyl, butyl, cyclohexyl, benzyl, cinnamyl, and -CH₂CH₂CH₂-NHR₁₃, wherein R₁₃ is selected from methanesulfonyl, phenylsulfonyl, benzyl, and phenylaminocarbonyl.

10

34. The compound or salt according to claim 30 wherein R_{1'} is hydrogen.

35. The compound or salt according to claim 30 wherein R_{2A} is selected from hydrogen, alkyl, and alkoxyalkylenyl.

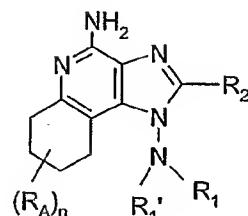
15

36. The compound or salt according to claim 35 wherein R_{2A} is selected from hydrogen, butyl, methoxyethyl, and ethoxymethyl.

37. The compound or salt according to claim 30 wherein n is 0.

20

38. A compound of the Formula (II-1):



II-1

25

wherein:

each R_A is independently selected from the group consisting of:
halogen,
hydroxy,

alkyl,

alkenyl,

haloalkyl,

alkoxy,

5 alkylthio,

-NH₂,

-NH(alkyl), and

-N(alkyl)₂;

n is an integer from 0 to 4;

10 R₁' is selected from the group consisting of hydrogen and alkyl;

R₁ is selected from the group consisting of:

-R₄,

-Y-R₄,

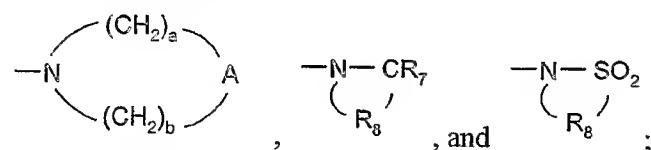
-X-R₅,

15 -X-N(R₆)-Y-R₄,

-X-C(R₇)-N(R₆)-R₄, and

-X-O-R₄;

or R₁' and R₁ together with the nitrogen atom to which they are bonded can join to form a group selected from the group consisting of:



20 R₂ is selected from the group consisting of:

-hydrogen,

-alkyl,

-alkenyl,

25 -aryl,

-heteroaryl,

-heterocyclyl,

-alkylene-Z-alkyl,

-alkylene-Z-aryl,

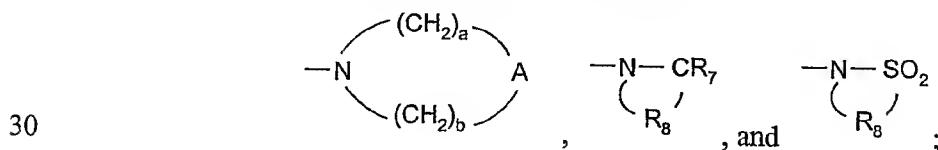
30 -alkylene-Z-alkenyl, and

-alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:

- OH,
- halogen,
- 5 -N(R₆)₂,
- C(R₇)-N(R₆)₂,
- S(O)₂-N(R₆)₂,
- N(R₆)-C(R₇)-C₁₋₁₀ alkyl,
- N(R₆)-S(O)₂-C₁₋₁₀ alkyl,
- 10 -C(O)-C₁₋₁₀ alkyl,
- C(O)-O-C₁₋₁₀ alkyl,
- N₃,
- aryl,
- heteroaryl,
- 15 -heterocyclyl,
- C(O)-aryl, and
- C(O)-heteroaryl;

R₄ is selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, heteroaryl, and heterocyclyl wherein the alkyl, alkenyl, alkynyl, aryl, heteroaryl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, haloalkyl, haloalkoxy, halogen, nitro, hydroxy, mercapto, cyano, carboxy, formyl, aryl, aryloxy, arylalkoxy, heteroaryl, heteroaryloxy, heteroarylalkoxy, heterocyclyl, heterocyclylalkylenyl, amino, alkylamino, (arylalkylenyl)amino, dialkylamino, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo, with the proviso that when R₄ is a substituted alkyl group and the substituent contains a hetero atom which bonds directly to the alkyl group then the alkyl group contains at least two carbons between the substituent and the nitrogen atom to which R₁ is bonded;

R₅ is selected from the group consisting of:



each R₆ is independently selected from the group consisting of hydrogen, alkyl, and arylalkylenyl;

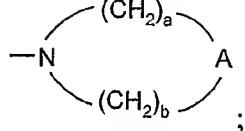
each R₇ is independently selected from the group consisting of =O and =S;

R₈ is C₂₋₇ alkylene;

5 A is selected from the group consisting of -CH(R₆)-, -O-, -N(R₆)-, -N(Y-R₄)-, and -N(X-N(R₆)-Y-R₄)-;

X is C₂₋₂₀ alkylene;

Y is selected from the group consisting of -C(R₇)-, -C(R₇)-O-, -S(O)₂-, -S(O)₂-N(R₆)-, and -C(R₇)-N(R₉)-; wherein R₉ is selected from the group consisting of 10 hydrogen, alkyl, and arylalkylenyl; or R₉ and R₄ together with the nitrogen atom to which R₉ is bonded can join to form the group



Z is selected from the group consisting of -O- and -S(O)₀₋₂-; and

a and b are independently integers from 1 to 4 with the proviso that when A is 15 -O-, -N(R₆)-, -N(Y-R₄)-, or -N(X-N(R₆)-Y-R₄)- then a and b are independently integers from 2 to 4;

or a pharmaceutically acceptable salt thereof.

39. The compound or salt according to claim 38 wherein R₁ is selected from the group 20 consisting of -R₄, -Y-R₄, and -X-N(R₆)-Y-R₄ wherein Y is -C(R₇)-, -S(O)₂-, or -C(R₇)-N(R₉)-.

40. The compound or salt according to claim 39 wherein R₁ is selected from the group 25 consisting of hydrogen, alkyl, alkenyl, arylalkylenyl, arylalkenylenyl, heteroarylalkylenyl, heteroarylalkenylenyl, aminoalkylenyl, alkoxyalkylenyl, acyl, alkylsulfonylaminoalkylenyl, arylsulfonylaminoalkylenyl, alkylaminocarbonyl, arylaminocarbonyl, (arylalkylenyl)aminoalkylenyl, and arylaminocarbonylaminoalkylenyl.

41. The compound or salt according to claim 39 wherein R₁ is selected from the group consisting of hydrogen, alkyl, alkenyl, arylalkylenyl, arylalkenylenyl, heteroarylalkylenyl, heteroarylalkenylenyl, aminoalkylenyl, alkoxyalkylenyl, acyl, alkylsulfonylaminoalkylenyl, arylsulfonylaminoalkylenyl, alkylaminocarbonyl, 5 arylaminocarbonyl, (arylalkylenyl)aminoalkylenyl, heterocyclcarbonylaminoalkylenyl, and arylaminocarbonylaminoalkylenyl.

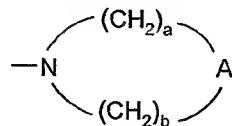
42. The compound or salt according to claim 40 wherein R₁ is selected from the group consisting of hydrogen, methyl, isopropyl, butyl, 2-methylpropyl, 1-ethylpropyl, 3-10 methylbutyl, cyclohexyl, benzyl, cinnamyl, furan-2-ylmethyl, and -CH₂CH₂CH₂-NHR₁₃, wherein R₁₃ is selected from the group consisting of methanesulfonyl, phenylsulfonyl, benzyl, and phenylaminocarbonyl.

43. The compound or salt according to claim 41 wherein R₁ is selected from the group 15 consisting of hydrogen, methyl, isopropyl, butyl, 2-methylpropyl, 1-ethylpropyl, 3-methylbutyl, cyclohexyl, benzyl, 3-phenylpropyl, cinnamyl, furan-2-ylmethyl, and -CH₂CH₂CH₂-NHR₁₃, wherein R₁₃ is selected from the group consisting of methanesulfonyl, phenylsulfonyl, benzyl, isopropylaminocarbonyl, morpholine-4-carbonyl, and phenylaminocarbonyl.

44. The compound or salt according to claim 38 wherein R₁' is hydrogen.

45. The compound or salt of claim 38 wherein R₁ and R₁' are each independently alkyl.

20 46. The compound or salt of claim 38 wherein R₁ and R₁' join to form the group:



47. The compound or salt according to claim 38 wherein R₂ is selected from the group consisting of hydrogen, alkyl, and alkoxyalkylenyl.

48. The compound or salt according to claim 47 wherein R₂ is selected from the group consisting of hydrogen, butyl, 2-methoxyethyl, and ethoxymethyl.

5 49. The compound or salt according to claim 47 wherein R₂ is selected from the group consisting of hydrogen, methyl, propyl, butyl, 2-methoxyethyl, and ethoxymethyl.

50. The compound or salt according to claim 38 wherein n is 0.

10 51. A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of claim 1 and a pharmaceutically acceptable carrier.

52. A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of claim 5 and a pharmaceutically acceptable carrier.

15 53. A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of claim 7 and a pharmaceutically acceptable carrier.

54. A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of claim 19 and a pharmaceutically acceptable carrier.

20 55. A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of claim 30 and a pharmaceutically acceptable carrier.

25 56. A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of claim 38 and a pharmaceutically acceptable carrier.

57. A method of inducing cytokine biosynthesis in an animal comprising administering an effective amount of a compound or salt of claim 1 to the animal.

58. A method of inducing cytokine biosynthesis in an animal comprising administering an effective amount of a compound or salt of claim 5 to the animal.

5 59. A method of inducing cytokine biosynthesis in an animal comprising administering an effective amount of a compound or salt of claim 7 to the animal.

60. A method of inducing cytokine biosynthesis in an animal comprising administering an effective amount of a compound or salt of claim 19 to the animal.

10

61. A method of inducing cytokine biosynthesis in an animal comprising administering an effective amount of a compound or salt of claim 30 to the animal.

15

62. A method of inducing cytokine biosynthesis in an animal comprising administering an effective amount of a compound or salt of claim 38 to the animal.

63. A method of treating a viral disease in an animal in need thereof comprising administering to the animal a therapeutically effective amount of a compound or salt of claim 1.

20

64. A method of treating a viral disease in an animal in need thereof comprising administering to the animal a therapeutically effective amount of a compound or salt of claim 5.

25

65. A method of treating a viral disease in an animal in need thereof comprising administering to the animal a therapeutically effective amount of a compound or salt of claim 7.

66. A method of treating a viral disease in an animal in need thereof comprising administering to the animal a therapeutically effective amount of a compound or salt of claim 19.

5 67. A method of treating a viral disease in an animal in need thereof comprising administering to the animal a therapeutically effective amount of a compound or salt of claim 30.

10 68. A method of treating a viral disease in an animal in need thereof comprising administering to the animal a therapeutically effective amount of a compound or salt of claim 38.

15 69. A method of treating a neoplastic disease in an animal in need thereof comprising administering to the animal a therapeutically effective amount of a compound or salt of claim 1.

70. A method of treating a neoplastic disease in an animal in need thereof comprising administering to the animal a therapeutically effective amount of a compound or salt of claim 5.

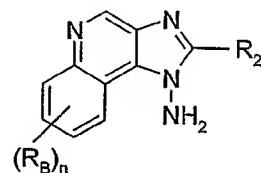
20 71. A method of treating a neoplastic disease in an animal in need thereof comprising administering to the animal a therapeutically effective amount of a compound or salt of claim 7.

25 72. A method of treating a neoplastic disease in an animal in need thereof comprising administering to the animal a therapeutically effective amount of a compound or salt of claim 19.

73. A method of treating a neoplastic disease in an animal in need thereof comprising administering to the animal a therapeutically effective amount of a compound or salt of claim 30.

5 74. A method of treating a neoplastic disease in an animal in need thereof comprising administering to the animal a therapeutically effective amount of a compound or salt of claim 38.

75. A compound of the Formula (VII):



10

VII

wherein:

each R_B is independently selected from the group consisting of alkyl, alkoxy, 15 halogen, hydroxy, and trifluoromethyl;

n is an integer from 0 to 4;

R_2 is selected from the group consisting of:

-hydrogen,

-alkyl,

20 -alkenyl,

-aryl,

-heteroaryl,

-heterocyclyl,

25 -alkylene-Z-alkyl,

-alkylene-Z-aryl,

-alkylene-Z-alkenyl, and

-alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:

-OH,
 -halogen,
 -N(R₆)₂,
 -C(R₇)-N(R₆)₂,
 5 -S(O)₂-N(R₆)₂,
 -N(R₆)-C(R₇)-C₁₋₁₀ alkyl,
 -N(R₆)-S(O)₂-C₁₋₁₀ alkyl,
 -C(O)-C₁₋₁₀ alkyl,
 -C(O)-O-C₁₋₁₀ alkyl,
 10 -N₃,
 -aryl,
 -heteroaryl,
 -heterocyclyl,
 -C(O)-aryl, and
 15 -C(O)-heteroaryl;

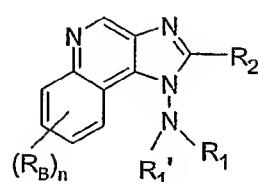
each R₆ is independently selected from the group consisting of hydrogen, alkyl, and arylalkylenyl;

R₇ is selected from the group consisting of =O and =S; and

Z is selected from the group consisting of -O- and -S(O)₀₋₂-;

20 or a pharmaceutically acceptable salt thereof.

76. A compound of the Formula (IX):



IX

wherein:

each R₈ is independently selected from the group consisting of alkyl, alkoxy, halogen, hydroxy, and trifluoromethyl;

n is an integer from 0 to 4;

R₁' is hydrogen or alkyl;

R₁ is selected from the group consisting of:

-R₄,

-Y-R₄,

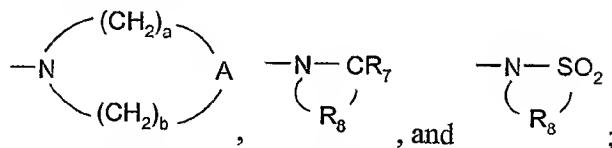
5 -X-R₅,

-X-N(R₆)-Y-R₄,

-X-C(R₇)-N(R₆)-R₄, and

-X-O-R₄;

or R₁' and R₁ together with the nitrogen atom to which they are bonded can join to
10 form a group selected from the group consisting of:



R₂ is selected from the group consisting of:

-hydrogen,

-alkyl,

15 -alkenyl,

-aryl,

-heteroaryl,

-heterocyclyl,

-alkylene-Z-alkyl,

20 -alkylene-Z-aryl,

-alkylene-Z-alkenyl, and

-alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:

-OH,

25 -halogen,

-N(R₆)₂,

-C(R₇)-N(R₆)₂,

-S(O)₂-N(R₆)₂,

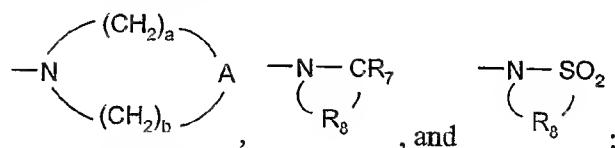
-N(R₆)-C(R₇)-C₁₋₁₀ alkyl,

30 -N(R₆)-S(O)₂-C₁₋₁₀ alkyl,

-C(O)-C₁₋₁₀ alkyl,
 -C(O)-O-C₁₋₁₀ alkyl,
 -N₃,
 -aryl,
 5 -heteroaryl,
 -heterocyclyl,
 -C(O)-aryl, and
 -C(O)-heteroaryl;

R₄ is selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, heteroaryl, and heterocyclyl wherein the alkyl, alkenyl, alkynyl, aryl, heteroaryl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, haloalkyl, haloalkoxy, halogen, nitro, hydroxy, mercapto, cyano, carboxy, formyl, aryl, aryloxy, arylalkoxy, heteroaryl, heteroaryloxy, heteroarylalkoxy, heterocyclyl, heterocyclylalkylenyl, amino, 15 alkylamino, (arylalkylenyl)amino, dialkylamino, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo, with the proviso that when R₄ is a substituted alkyl group and the substituent contains a hetero atom which bonds directly to the alkyl group then the alkyl group contains at least two carbons between the substituent and the nitrogen atom to which R₁ is bonded;

20 R₅ is selected from the group consisting of



each R₆ is independently selected from the group consisting of hydrogen, alkyl, and arylalkylenyl;

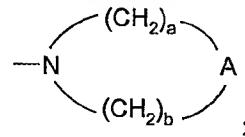
each R₇ is independently selected from the group consisting of =O and =S;
 25 R₈ is C₂₋₇ alkylene;

A is selected from the group consisting of -CH(R₆)-, -O-, -N(R₆)-, -N(Y-R₄)-, and -N(X-N(R₆)-Y-R₄)-;

X is C₂₋₂₀ alkylene;

Y is selected from the group consisting of -C(R₇)-, -C(R₇)-O-, -S(O)₂-,

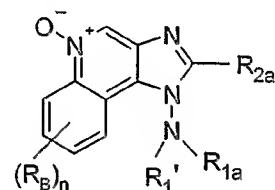
-S(O)₂-N(R₆)-, and -C(R₇)-N(R₉)-; wherein R₉ is selected from the group consisting of hydrogen, alkyl, and arylalkylenyl; or R₉ and R₄ together with the nitrogen atom to which R₉ is bonded can join to form the group



5 Z is selected from the group consisting of -O- and -S(O)₀₋₂-; and
a and b are independently integers from 1 to 4 with the proviso that when A is
-O-, -N(R₆)-, -N(Y-R₄)-, or -N(X-N(R₆)-Y-R₄)- then a and b are independently integers
from 2 to 4;
or a pharmaceutically acceptable salt thereof.

10

77. A compound of the Formula (X):



X

wherein:

15 each R_B is independently selected from the group consisting of alkyl, alkoxy, halogen, hydroxy, and trifluoromethyl;

n is an integer from 0 to 4;

R_{1'} is hydrogen or alkyl;

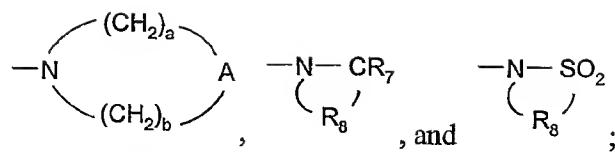
R_{1a} is selected from the group consisting of:

20

- R_{4a},
- Y-R_{4a},
- X-R₅,
- X-N(R₆)-Y-R_{4a},
- X-C(R₇)-N(R₆)-R_{4a}, and
- X-O-R_{4a};

25

or R_{1'} and R_{1a} together with the nitrogen atom to which they are bonded can join to form a group selected from the group consisting of:



R_{2a} is selected from the group consisting of:

-hydrogen,

-alkyl,

5

-alkenyl,

-aryl,

-alkylene-Z"-alkyl,

-alkylene-Z"-aryl,

-alkylene-Z"- alkenyl, and

10

-alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:

-OH,

-halogen,

-N(R_6)₂,

15

-C(R_7)-N(R_6)₂,

-S(O)₂-N(R_6)₂,

-N(R_6)-C(R_7)-C₁₋₁₀ alkyl,

-N(R_6)- S(O)₂-C₁₋₁₀ alkyl,

-C(O)-C₁₋₁₀ alkyl,

20

-C(O)-O-C₁₋₁₀ alkyl,

-N₃,

-aryl,

-heterocyclyl, and

-C(O)-aryl;

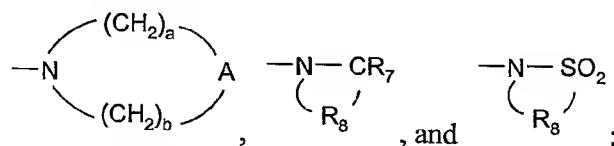
25

R_{4a} is selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, and heterocyclyl wherein the alkyl, alkenyl, alkynyl, aryl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, haloalkyl, haloalkoxy, halogen, nitro, hydroxy, cyano, carboxy, formyl, aryl, aryloxy, arylalkoxy, heterocyclyl, heterocyclalkylenyl, amino, alkylamino, (arylalkylenyl)amino, dialkylamino, and in the ease of alkyl, alkenyl, alkynyl,

30

and heterocycl, oxo, with the proviso that when R_{4a} is a substituted alkyl group and the substituent contains a hetero atom which bonds directly to the alkyl group then the alkyl group contains at least two carbons between the substituent and the nitrogen atom to which R₁ is bonded;

5 R₅ is selected from the group consisting of



each R₆ is independently selected from the group consisting of hydrogen, alkyl, and arylalkylenyl;

each R₇ is independently selected from the group consisting of =O and =S;

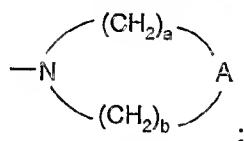
10 R₈ is C₂₋₇ alkylene;

A is selected from the group consisting of -CH(R₆)-, -O-, -N(R₆)-, -N(Y-R₄)-, and -N(X-N(R₆)-Y-R₄)-;

X is C₂₋₂₀ alkylene;

Y is selected from the group consisting of -C(R₇)-, -C(R₇)-O-, -S(O)₂-,

15 -S(O)₂-N(R₆)-, and -C(R₇)-N(R₉)-; wherein R₉ is selected from the group consisting of hydrogen, alkyl and arylalkylenyl, or R₉ and R₄ together with the nitrogen atom to which R₉ is bonded can join to form the group

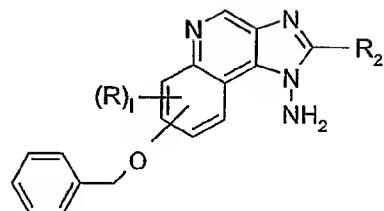


Z" is selected from the group consisting of -O- and -S(O)₂-; and

20 a and b are independently integers from 1 to 4 with the proviso that when A is -O-, -N(R₆)-, -N(Y-R₄)-, or -N(X-N(R₆)-Y-R₄)- then a and b are independently integers from 2 to 4;

or a pharmaceutically acceptable salt thereof.

78. A compound of the Formula (XLII):



XLII

5 wherein:

R is selected from the group consisting of alkyl, alkenyl, alkoxy, halogen, fluoroalkyl, hydroxy, amino, alkylamino, and dialkylamino;

1 is 0 or 1;

R₂ is selected from the group consisting of:

- 10 -hydrogen,
- alkyl,
- alkenyl,
- aryl,
- heteroaryl,
- 15 -heterocyclyl,
- alkylene-Z-alkyl,
- alkylene-Z-aryl,
- alkylene-Z-alkenyl, and
- alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:
- OH,
- halogen,
- N(R₆)₂,
- C(R₇)-N(R₆)₂,
- S(O)₂-N(R₆)₂,
- 25 -N(R₆)-C(R₇)-C₁₋₁₀ alkyl,
- N(R₆)-S(O)₂-C₁₋₁₀ alkyl,
- C(O)-C₁₋₁₀ alkyl,

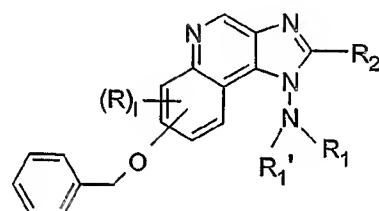
-C(O)-O-C₁₋₁₀ alkyl,
 -N₃,
 -aryl,
 -heteroaryl,
 5 -heterocyclyl,
 -C(O)-aryl, and
 -C(O)-heteroaryl;

each R₆ is independently selected from the group consisting of hydrogen, alkyl, and arylalkylenyl;

10 R₇ is selected from the group consisting of =O and =S; and
 Z is selected from the group consisting of -O- and -S(O)₀₋₂₋;
 or a pharmaceutically acceptable salt thereof.

79. A compound of the Formula (XLIII):

15



XLIII

wherein:

20 R is selected from the group consisting of alkyl, alkenyl, alkoxy, halogen, fluoroalkyl, hydroxy, amino, alkylamino, and dialkylamino;

1 is 0 or 1;

R₁' is hydrogen or alkyl;

R₁ is selected from the group consisting of:

-R₄,

-Y-R₄,

-X-R₅,

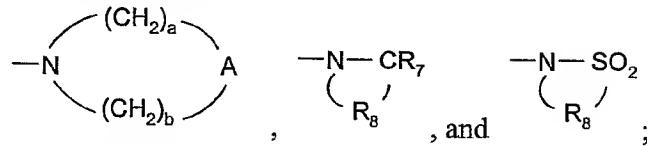
-X-N(R₆)-Y-R₄,

-X-C(R₇)-N(R₆)-R₄, and

25

-X-O-R₄;

or R₁' and R₁ together with the nitrogen atom to which they are bonded can join to form a group selected from the group consisting of:



5 R₂ is selected from the group consisting of:

-hydrogen,

-alkyl,

-alkenyl,

-aryl,

10 -heteroaryl,

-heterocyclyl,

-alkylene-Z-alkyl,

-alkylene-Z-aryl,

-alkylene-Z-alkenyl, and

15 -alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:

-OH,

-halogen,

-N(R₆)₂,

20 -C(R₇)-N(R₆)₂,

-S(O)₂-N(R₆)₂,

-N(R₆)-C(R₇)-C₁₋₁₀ alkyl,

-N(R₆)-S(O)₂-C₁₋₁₀ alkyl,

-C(O)-C₁₋₁₀ alkyl,

25 -C(O)-O-C₁₋₁₀ alkyl,

-N₃,

-aryl,

-heteroaryl,

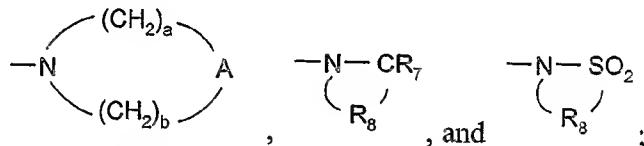
-heterocyclyl,

30 -C(O)-aryl, and

-C(O)-heteroaryl;

R₄ is selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, heteroaryl, and heterocyclyl wherein the alkyl, alkenyl, alkynyl, aryl, heteroaryl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, haloalkyl, haloalkoxy, halogen, nitro, hydroxy, mercapto, cyano, carboxy, formyl, aryl, aryloxy, arylalkoxy, heteroaryl, heteroaryloxy, heteroarylalkoxy, heterocyclyl, heterocyclylalkylenyl, amino, alkylamino, (arylalkylenyl)amino, dialkylamino, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo, with the proviso that when R₄ is a substituted alkyl group and the substituent contains a hetero atom which bonds directly to the alkyl group then the alkyl group contains at least two carbons between the substituent and the nitrogen atom to which R₁ is bonded;

R₅ is selected from the group consisting of



each R₆ is independently selected from the group consisting of hydrogen, alkyl, and arylalkylenyl;

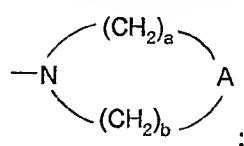
each R₇ is independently selected from the group consisting of =O and =S;

R₈ is C₂₋₇ alkylene;

A is selected from the group consisting of -CH(R₆)-, -O-, -N(R₆)-, -N(Y-R₄)-, and 20 -N(X-N(R₆)-Y-R₄)-;

X is C₂₋₂₀ alkylene;

Y is selected from the group consisting of -C(R₇)-, -C(R₇)-O-, -S(O)₂-, -S(O)₂-N(R₆)-, and -C(R₇)-N(R₉)-; wherein R₉ is selected from the group consisting of hydrogen, alkyl, and arylalkylenyl; or R₉ and R₄ together with the nitrogen atom to which R₉ is bonded can join to form the group



Z is selected from the group consisting of -O- and -S(O)₀₋₂-; and

a and b are independently integers from 1 to 4 with the proviso that when A is

-O-, -N(R₆)-, -N(Y-R₄)-, or -N(X-N(R₆)-Y-R₄)- then a and b are independently integers from 2 to 4;
or a pharmaceutically acceptable salt thereof.